

Frontend Development with React.js Project Document

1.Introduction

- **Project Title:** Cryptoverse
- **Team Members:**

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2. Project Overview

- **Purpose:** Cryptoverse is a frontend web application designed to provide real-time cryptocurrency data, including top cryptocurrencies, all available cryptocurrencies, and a portfolio section for users to track their holdings.

- **Features:**

- Home Page displaying the top 10 cryptocurrencies.
- Cryptocurrencies Page listing all available cryptocurrencies worldwide.
- Detailed view of each cryptocurrency with charts and statistical data.
- Portfolio section where users can add holdings to track profit/loss.
- Filtering Guidance Page explaining available filters and their functionalities.
- Application can be accessed through our native language “TAMIL”

3.Architecture

- **Component Structure:**

- Home Page Component
- Cryptocurrencies List Component
- Cryptocurrency Detail Component
- Portfolio Management Component
- Filtering Guidance Component
- Language Swapping Component

- **State Management:**

- Used Redux for global state management.

- Local state is managed within components using React's `useState` hook.
- **Routing:**
 - Implemented React Router for navigation across pages.

4.Setup Instructions

- **Prerequisites:**
 - Node.js
 - npm or yarn
- **Installation:**
 - Clone the repository: `git clone [repository URL]`
 - Navigate to the project directory: `cd cryptoverse`
 - Install dependencies: `npm install`
 - Set up environment variables (if required)

5.Folder Structure

- **client:** Contains the main React application.
 - **components:** Reusable UI components.
 - **pages:** Home, Cryptocurrencies, Portfolio, Cryptocurrency Detail, and Filter Guidance pages.
 - **assets:** Images, icons, and styles.
- **utilities:** Helper functions and custom hooks.

6. Running the Application

- **Start the frontend server:**
 - npm start (in the client directory)

7. Component Documentation

- **Key Components:**
 - **Home:** Displays top 10 cryptocurrencies.
 - **Cryptocurrencies:** Lists all available cryptocurrencies.
 - **Cryptocurrency Detail:** Shows charts, statistics, and links for a selected cryptocurrency.
 - **Portfolio:** Allows users to manage their cryptocurrency holdings.
 - **FilterGuidance:** Provides details on filtering options.
- **Reusable Components:**
 - **Card:** Used to display cryptocurrency data.
 - **Chart:** Displays historical price trends.
 - **FilterControls:** Used for filtering cryptocurrencies.

8.State Management

- **Global State:**
 - Redux store maintains the list of cryptocurrencies, user portfolio data, and filter settings.
- **Local State:**
 - Individual component states manage user interactions, such as selected filters.

9.User Interface

- **Screenshots and GIFs showcasing:**
 - Home Page
 - Cryptocurrencies List
 - Detailed Cryptocurrency View with Charts
 - Portfolio Management
 - Filtering Guidance

10.Styling

- **CSS Frameworks/Libraries:**
 - Tailwind CSS for styling.
 - Styled-Components for dynamic styling.

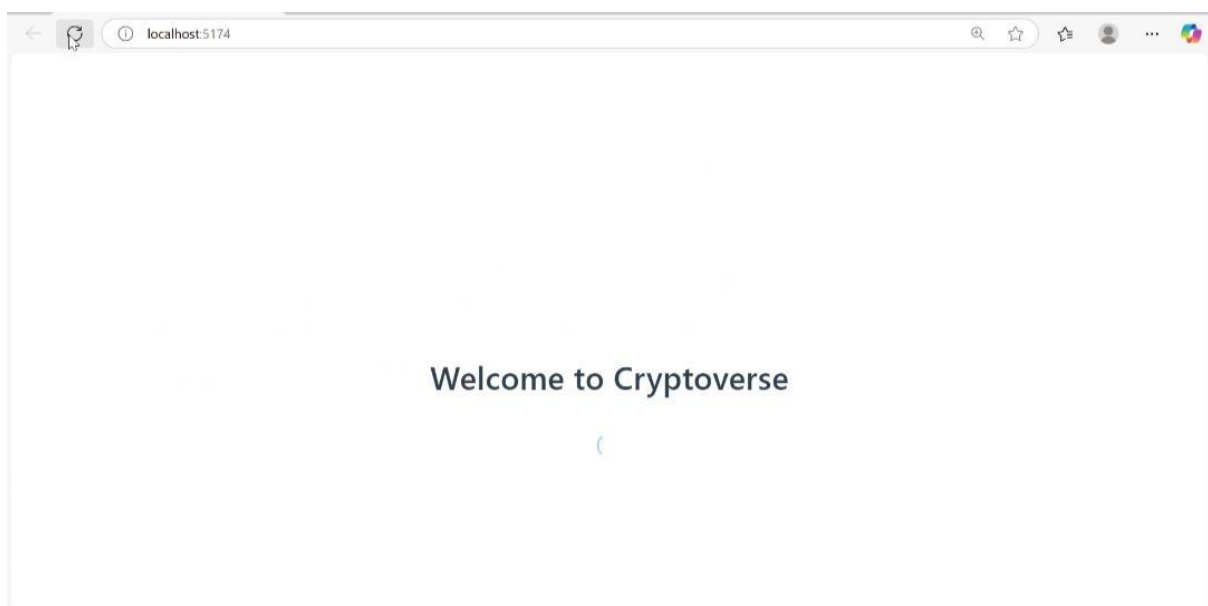
- **Theming:**
 - Light and Dark mode support.

11.Testing

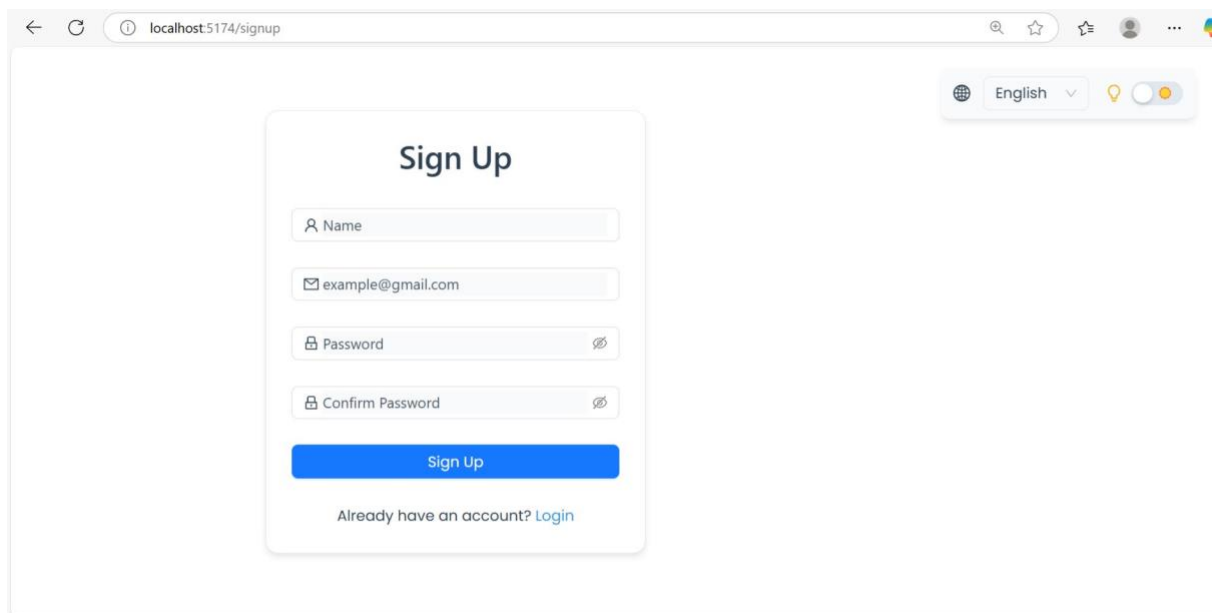
- **Testing Strategy:**
 - Jest and React Testing Library for unit and integration tests.
- **Code Coverage:**
 - Ensured through Jest coverage reports.

12.Screenshots or Demo

Welcome page

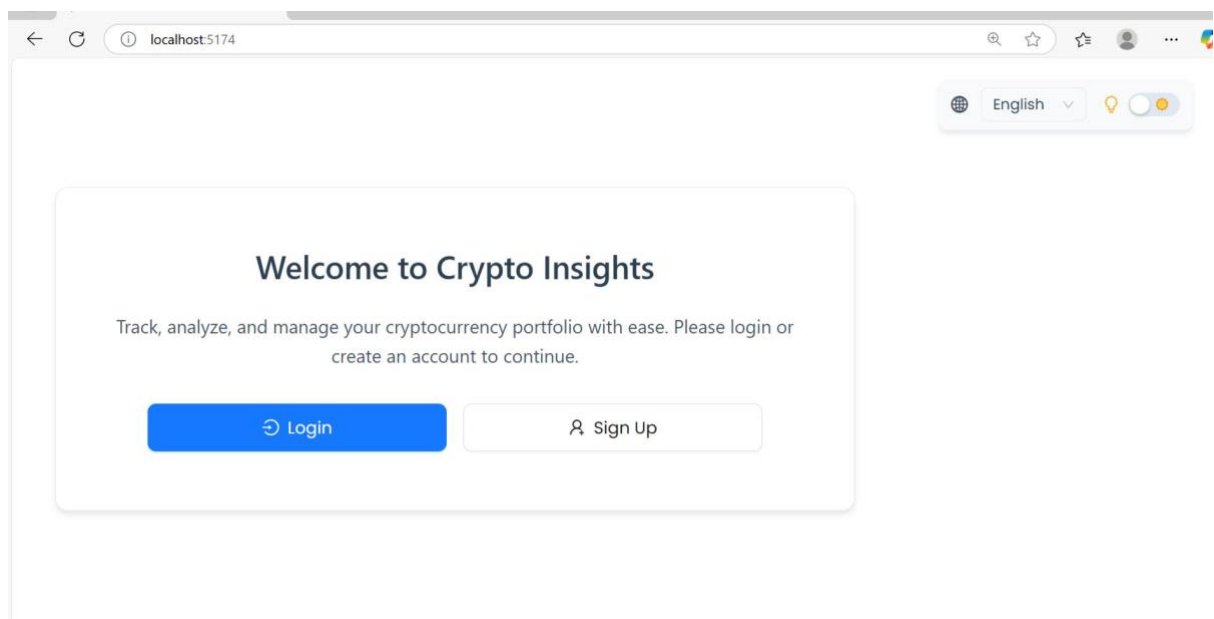


Sign up page



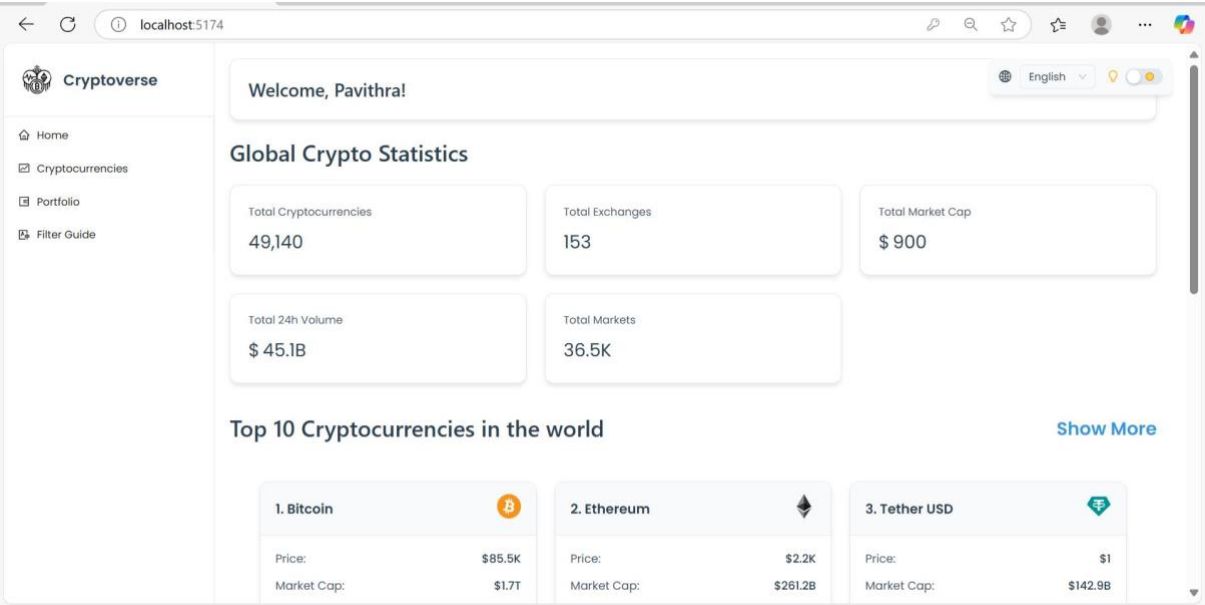
A screenshot of a web browser displaying the 'Sign Up' page. The browser's address bar shows 'localhost:5174/signup'. The page features a central white card with the title 'Sign Up'. Below the title are four input fields: 'Name' (with a person icon), 'Email' (containing 'example@gmail.com' and a mail icon), 'Password' (with a lock icon and a toggle for visibility), and 'Confirm Password' (with a lock icon and a toggle for visibility). A blue 'Sign Up' button is positioned below the fields. At the bottom of the card, it says 'Already have an account? [Login](#)'. In the top right corner of the browser window, there is a language dropdown set to 'English' and a theme toggle with light and dark mode options.

Login Page

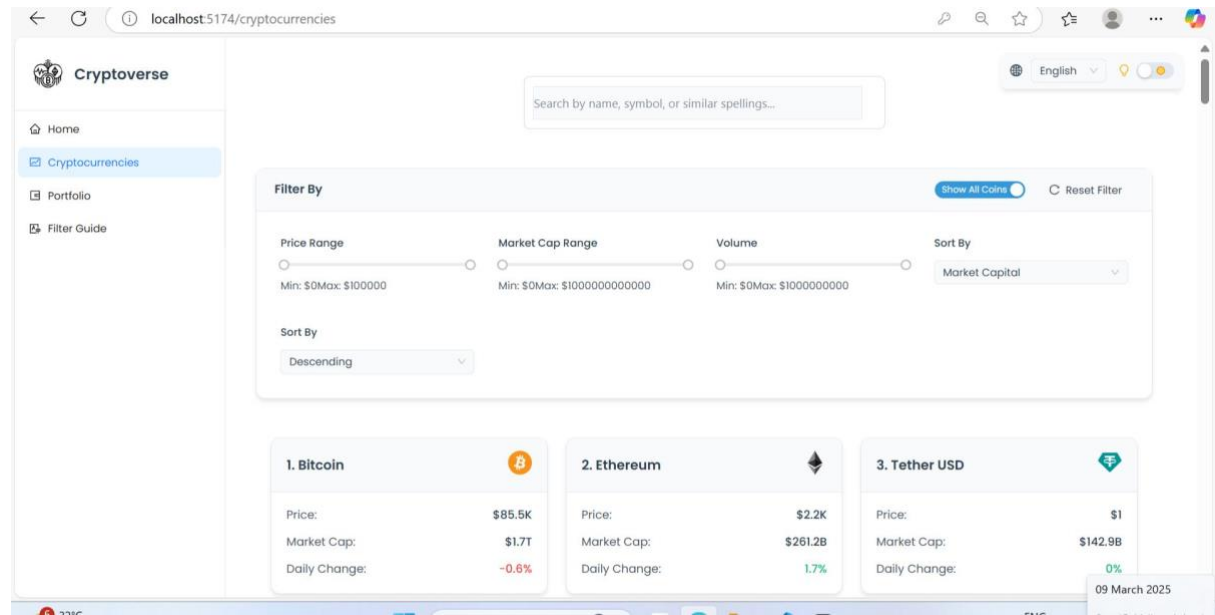


A screenshot of a web browser displaying the login page. The browser's address bar shows 'localhost:5174'. The page features a central white card with the title 'Welcome to Crypto Insights'. Below the title is a paragraph: 'Track, analyze, and manage your cryptocurrency portfolio with ease. Please login or create an account to continue.' At the bottom of the card are two buttons: a blue 'Login' button with a right-pointing arrow icon, and a white 'Sign Up' button with a person icon. In the top right corner of the browser window, there is a language dropdown set to 'English' and a theme toggle with light and dark mode options.

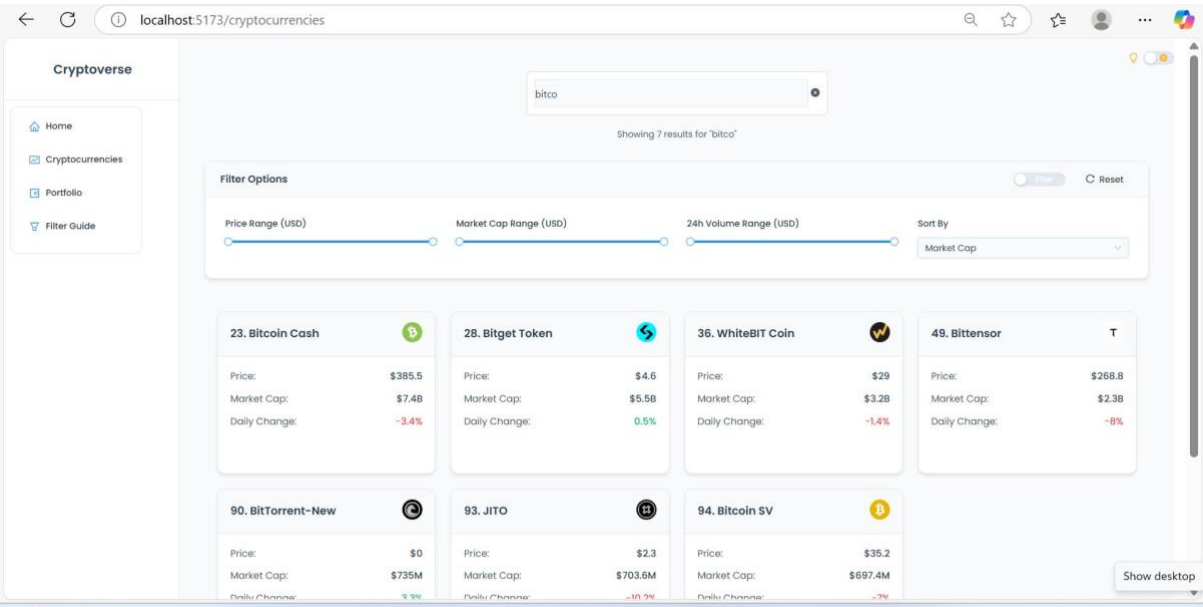
Home page



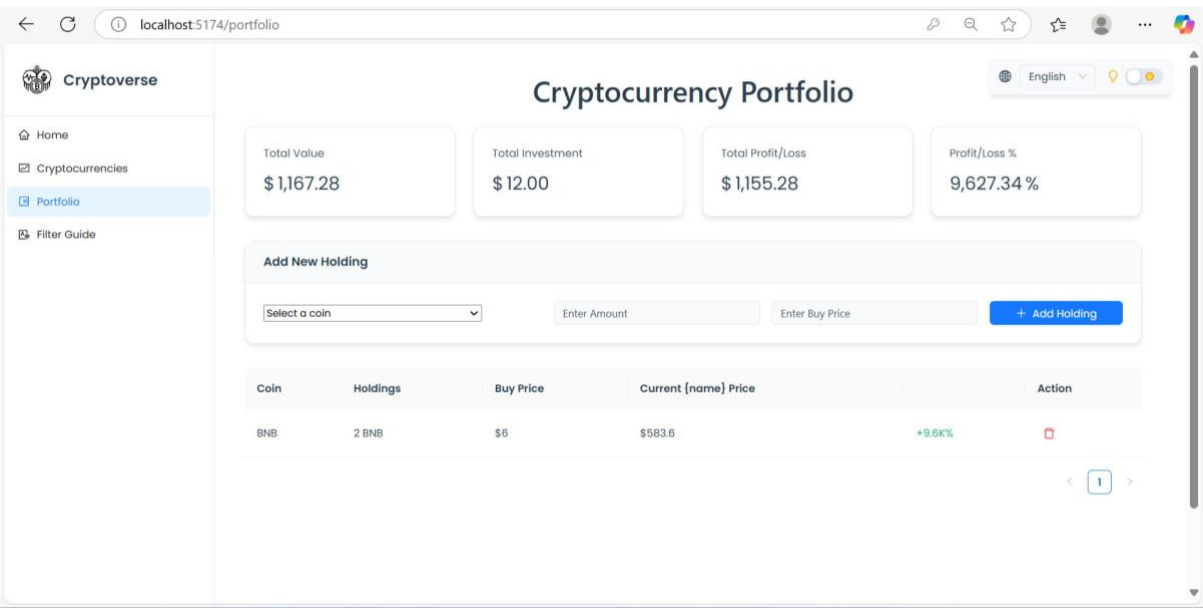
Cryptocurrency HomePage



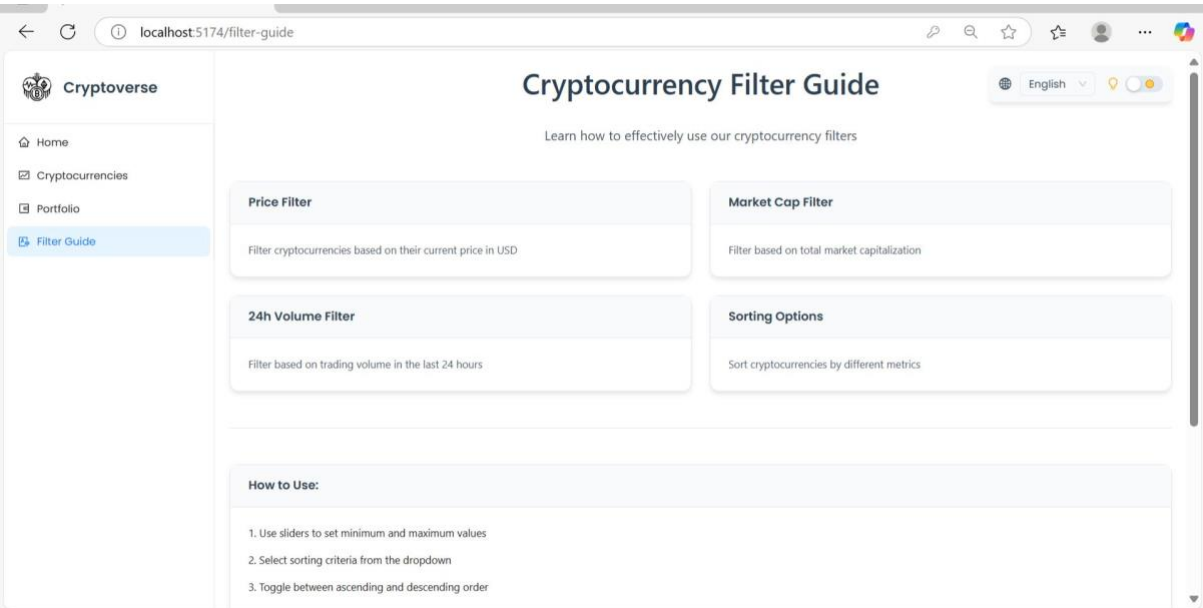
Using Search Bar



Portfolio Page

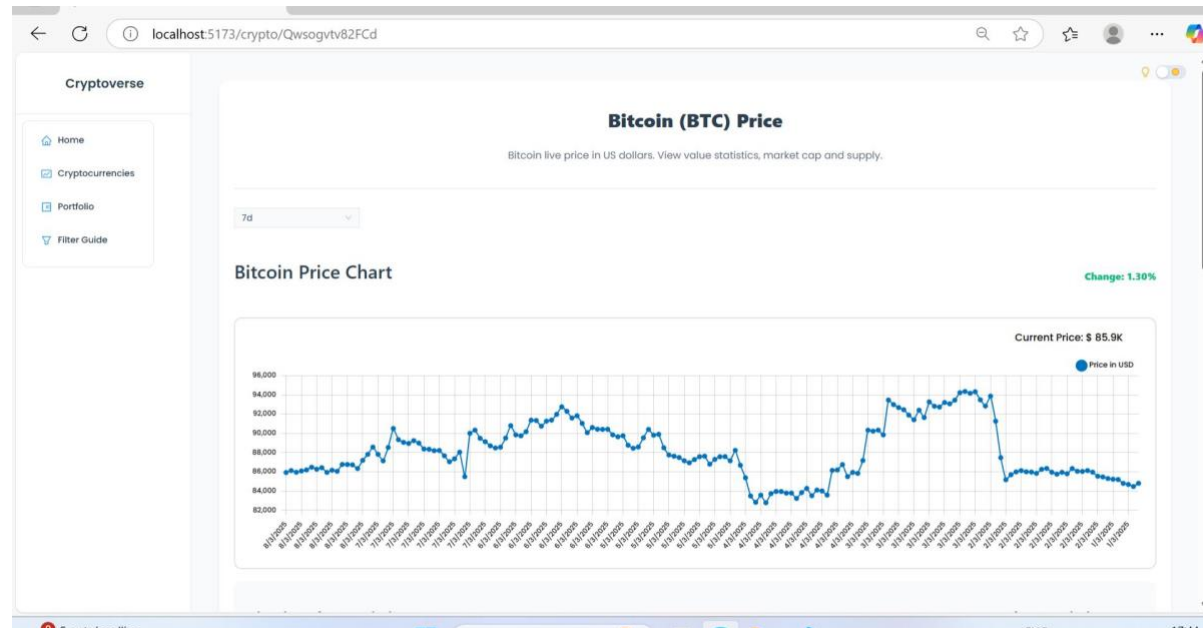


Filter Guidance Page

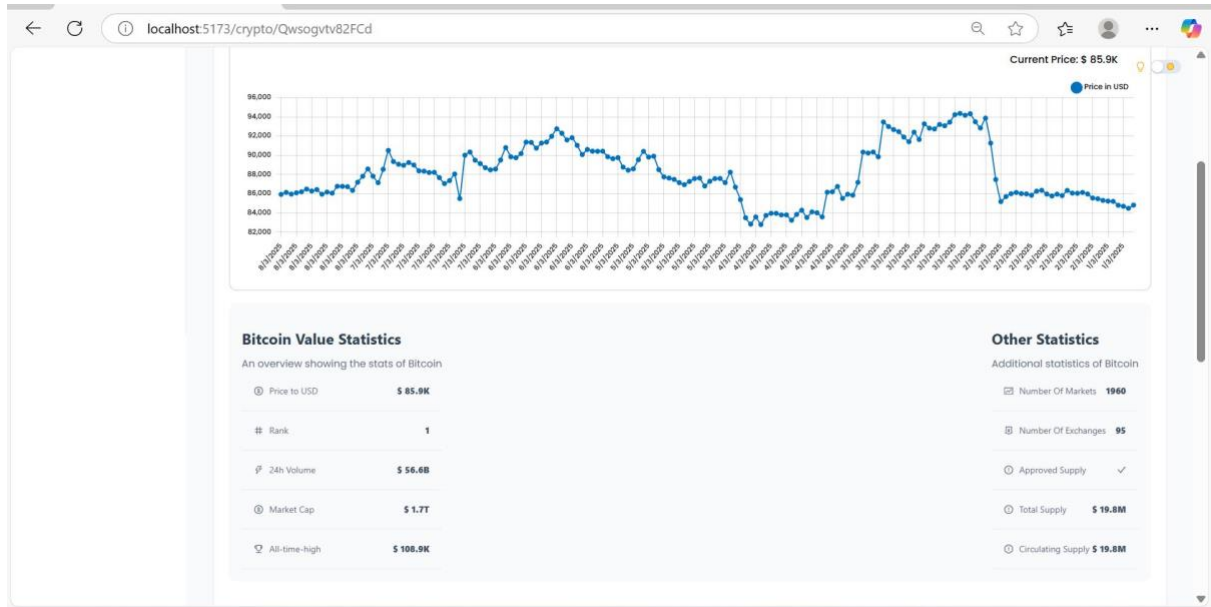


Detailed cryptocoin page(Bitcoin)

Page 1



Page 2



Page 3

The screenshot displays a web application interface with two main sections: 'What is Bitcoin?' and 'Bitcoin Links'.

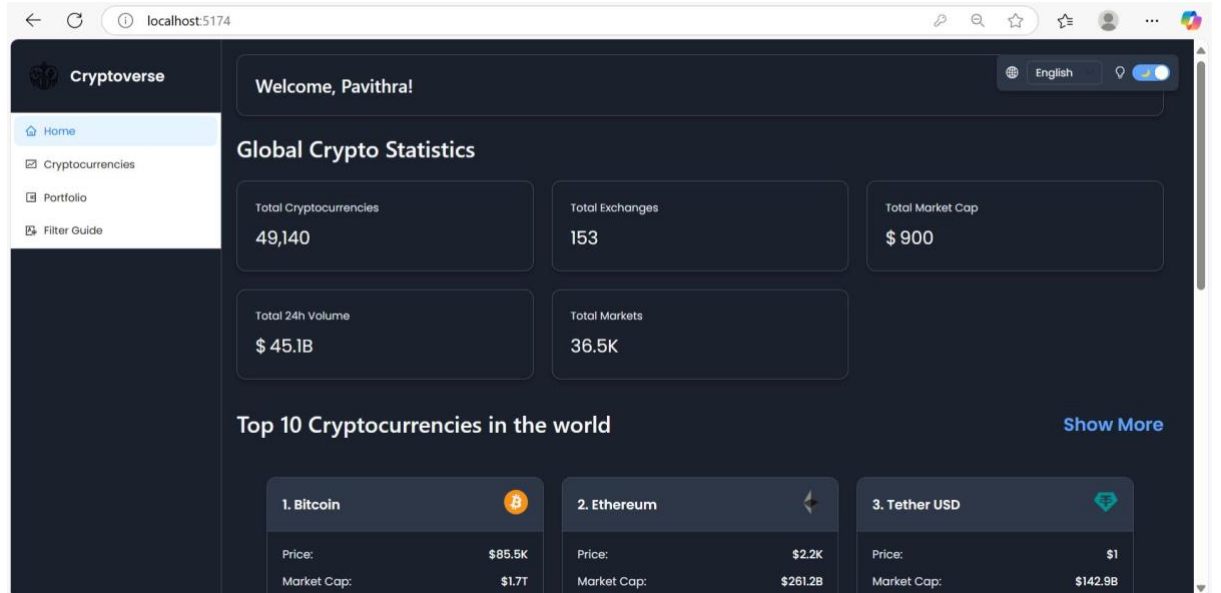
What is Bitcoin?

Bitcoin is a digital currency with a finite supply, allowing users to send/receive money without a central bank/government, often nicknamed "Digital Gold".

Bitcoin Links

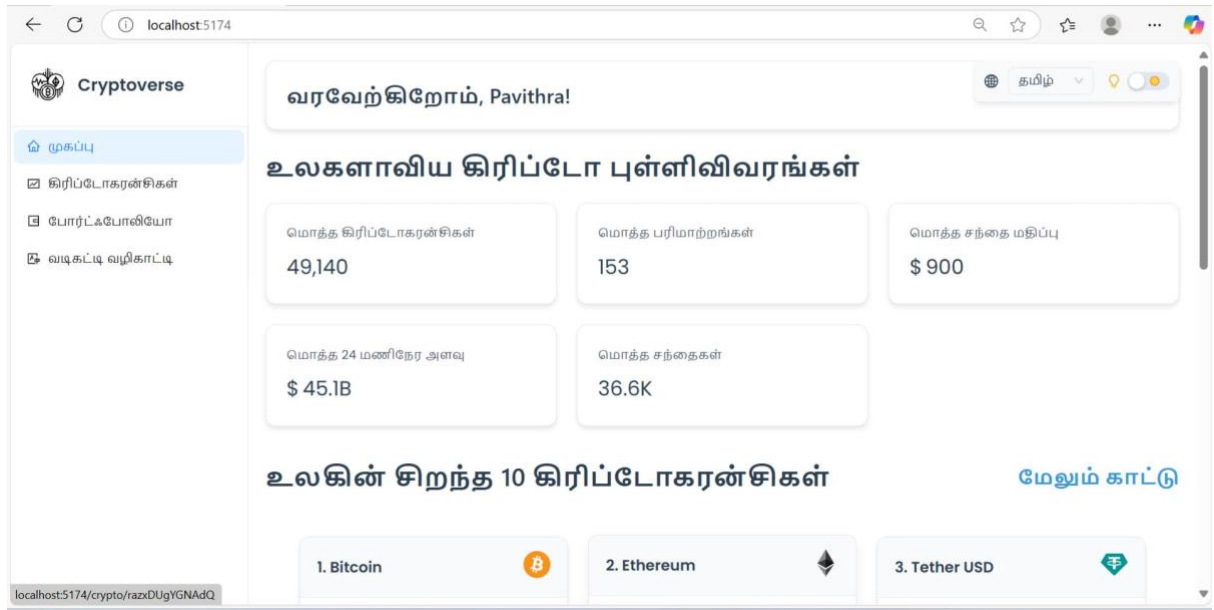
| | |
|-------------|---|
| Cmc | coinmarketcap.com |
| Website | bitcoin.org |
| Website | bitcoinmagazine.com |
| Bitcointalk | bitcointalk.org |
| Explorer | blockchain.com |
| Github | bitcoin/bitcoin |
| Reddit | r/bitcoin |
| Telegram | Bitcoin_Magazine |
| Telegram | bitcoin |
| Whitepaper | Bitcoin Whitepaper |

Dark Theme

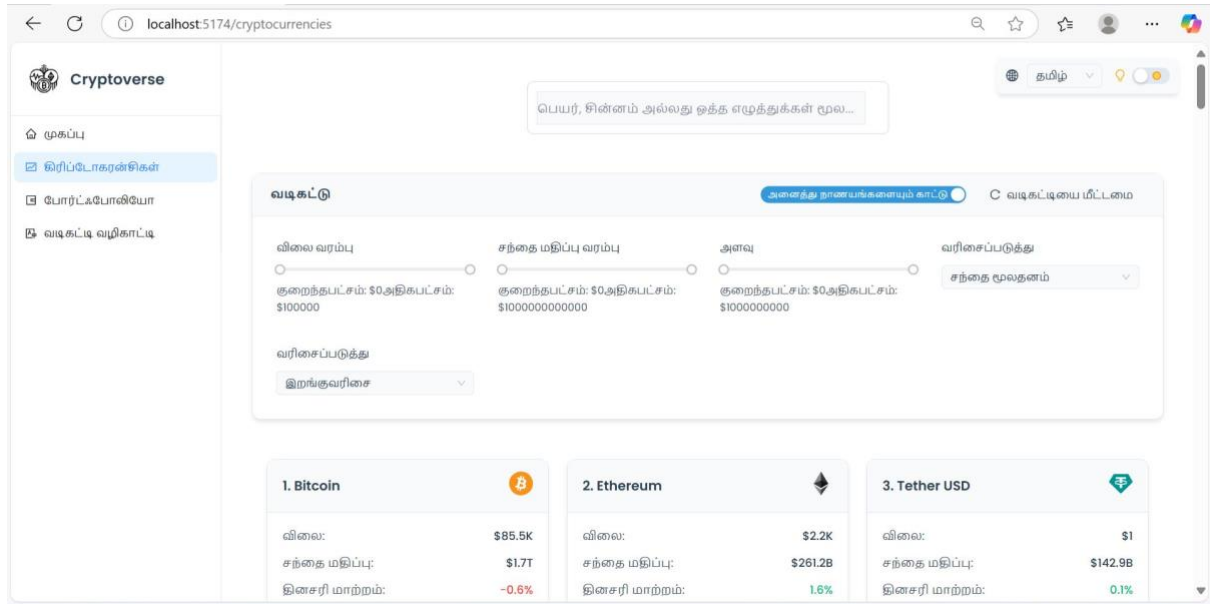


Native Language (Screenshots)

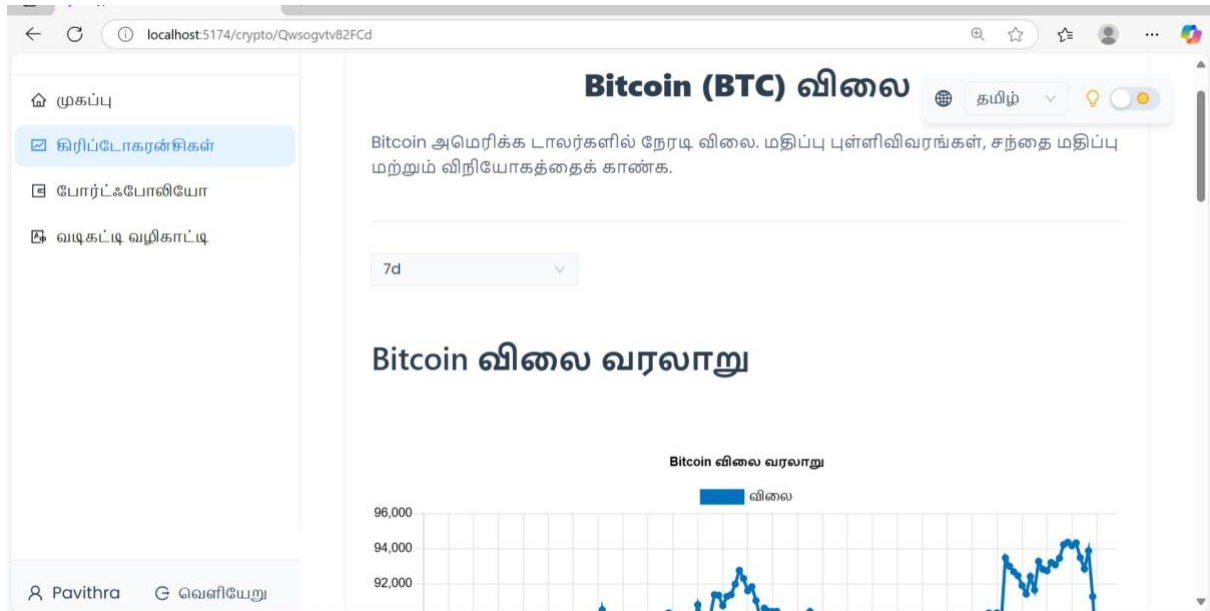
Page 1



Page 2



Page 3



localhost:5174/portfolio

Cryptoverse

தமிழ்

கிரிப்டோகரன்சி போர்ட்ஃபோலியோ

| | | | |
|------------------------------|---------------------------|-----------------------------------|------------------------------|
| மொத்த மதிப்பு \$ 1,166.72 | மொத்த முதலீடு \$ 12.00 | மொத்த லாபம்/நஷ்டம் \$ 1,154.72 | லாபம்/நஷ்டம் % 9,622.72 % |
|------------------------------|---------------------------|-----------------------------------|------------------------------|

புதிய வைப்பு சேர்க்கை

நாணயத்தைத் தேர்ந்தெடுக்கவும் அளவை உள்ளி... வாங்கும் விலை... [+ வைப்பு](#)

நாணயம் வைப்புகள் வாங்கும் விலை தற்போதைய விலை செயல்

localhost:5174/filter-guide

Cryptoverse

தமிழ்

கிரிப்டோகரன்சி வடிகட்டி

எங்கள் கிரிப்டோகரன்சி வடிகட்டிகளை திறம்பட பயன்படுத்த கற்றுக்கொள்ளுங்கள்

| | |
|---|---|
| <h3>விலை வடிகட்டி</h3> <p>தற்போதைய USD விலையின் அடிப்படையில் கிரிப்டோகரன்சிகளை வடிகட்டவும்</p> | <h3>சந்தை மதிப்பு வடிகட்டி</h3> <p>மொத்த சந்தை மூலதனத்தின் அடிப்படையில் வடிகட்டவும்</p> |
| <h3>24 மணிநேர அளவு வடிகட்டி</h3> <p>கடந்த 24 மணிநேரத்தில் வர்த்தக அளவின் அடிப்படையில் வடிகட்டவும்</p> | <h3>வரிசைப்படுத்தல் விருப்பங்கள்</h3> <p>வெவ்வேறு அளவீடுகளால் கிரிப்டோகரன்சிகளை வரிசைப்படுத்தவும்</p> |

13.Known Issues

- Some data APIs may have rate limits affecting live updates.
- Portfolio calculations may have minor discrepancies due to rounding.

14.Future Enhancements

- Adding real-time updates for cryptocurrency prices.
- Enhancing portfolio tracking with detailed transaction history.
- Implementing more advanced filters and sorting options.
- Improving UI/UX with animations and better design elements.